Background

Comprehensive sexual education is an essential component of growing up, providing young people with the knowledge, skills, and mindset they need to make informed decisions about their sexual and reproductive health. Yet, numerous young individuals lack access to accurate and reliable information about sexuality. Conventional approaches to sexual education, whether through schools, communities, or families, might not effectively reach diverse populations.

Recent advances in generative artificial intelligence (GenAI) development offer new opportunities for delivering personalized, interactive, and engaging sexuality education programmes that can reach young people where they are – online and on their mobile devices. An invaluable advantage of AI-driven platforms in sexuality education lies in offering anonymity and privacy. Many individuals feel uneasy discussing sensitive sexual health topics, potentially resulting in misconceptions or a lack of understanding. AI-powered tools possibly alleviate this by creating a safe, non-judgmental space where users can ask questions and receive accurate information without fear of embarrassment or stigma.

AI-driven tools are accessible across various devices, serving as a convenient and reachable resource, especially for those in remote or underserved communities lacking sexuality education. By leveraging AI-driven platforms, individuals, irrespective of their location or background, might gain access to accurate and updated information. Furthermore, platforms, driven by AI, continually learn and enhance themselves with each user interaction. This iterative process allows these platforms to stay current with the latest research and data, offering users the most reliable information available.

Despite the potential advantages, it's crucial to acknowledge the associated risks and challenges of implementing AI-driven sexuality education. Ensuring the accuracy and reliability of information provided by these platforms is paramount, as misinformation could severely impact an individual's health. Privacy concerns also demand attention to safeguard users’ sensitive information and maintain platform trust. Moreover, AI-driven tools, reflecting the data they are trained on, carry the risk of perpetuating societal biases concerning gender and sexuality or stigmatizing these topics, potentially turning them taboo. Particularly, AI chatbots trained with online content pose a risk of amplifying mainstream discourses or conveying inaccurate information.

The rapid evolution of AI technology has led to the emergence of new tools and educational platforms for children and adolescents, offering information and counseling on issues related to growing up, puberty, sexuality, health, and relationships. Given the swift emergence of educational and awareness raising tools, it’s essential to analyze practical experience to identify good practices and potential risks, and benefit from synergies and shared experiences. This approach allows the creation of tools that immediately incorporate key recommendations, ethical principles, and the insights gained from others’ experiences.
Key objectives

The objective of the project is to develop a comprehensive review of good practices in the use of AI for sexuality education and awareness raising. The review will provide guidance for educators, health professionals, tech companies and others who are interested in using AI to promote sexual health and well-being among young people. The review will cover a range of topics, including case studies of successful AI-based programs, ethical considerations, technical advice, best practices, and future directions.

Topics to be covered in the review:

1. Introduction: What is sexuality, health and well-being education? What are possible benefits of using AI for sexuality education?
2. Case studies: AI-based sexuality education programmes, including chat bots, apps, and digital tools, their target audience, content covered, and achieved outcomes.
3. Discussion on ethical considerations involving AI in sexuality education, focusing on privacy, data security, and consent.
4. Analysis of the current and evolving legal frameworks governing AI’s application in sexuality education, addressing any existing gaps or areas requiring further regulation.
5. Strategies to ensure inclusivity and accessibility in AI-based programs, specifically for individuals with disabilities and from marginalized communities.
6. Exploration of the psychological and emotional implications of AI in sensitive educational contexts, emphasizing strategies for ensuring positive impacts.
7. Technical considerations for designing effective AI-based sexuality education tools and programmes, such as user interface design, natural language processing, machine learning, and challenges associated with multi-language models.
8. Best practices for employing AI in sexuality education, encompassing recommendations for content development, user engagement strategies, and evaluation techniques.
9. Investigation of emerging trends and future directions in AI-based sexuality education, such as virtual reality, augmented reality, and immersive technologies.
10. Key insights and the potential transformative impact of AI on sexuality education.

The review will be conducted through a combination of desk research, expert and practitioners’ consultations. The desk research will involve a systematic review of the literature on AI-based sexuality, health and well-being education programmes, as well as an analysis of existing guidelines and standards related to ethics and data privacy. The expert consultations will involve interviews with leading experts in the fields of sexuality education, AI, and digital health. The review will be framed as a web-based project and will encompass a compilation of materials in various formats (interviews, narratives, storytelling, FAQs, etc.), ensuring a comprehensive exploration of the subject matter.

Expected outcomes

The review will provide practical guidance for educators, health professionals, tech companies, and others who are interested in using AI to promote sexual health and well-being among young people. The review will highlight best practices in content development, user engagement, and evaluation, as well as ethical considerations related to privacy and data security. The review will also identify emerging trends and future directions in AI-based sexuality education, such as the potential for virtual reality and other immersive technologies.
Terms of Reference

Individual Consultancy: Researcher – Desk Review and Interviews

The desk review and interview phase aim to achieve the following objectives:

1. Conduct a comprehensive desk review of existing literature, articles, and available resources pertinent to AI-based sexuality education.
2. Gather information and analyze documented instances of AI-driven tools used in sexuality education and awareness-raising. Identify potential strengths and limitations and compile best practices and insights from expert interviews with AI-tool developers and educators.
3. Examine and evaluate existing recommendations and standards, concerning AI-driven and AI-empowered technologies particularly in sexuality education, psychological counseling, service delivery to young people, gender, HIV prevention, and related subjects concerning AI-driven and AI-empowered technologies. This assessment encompasses frameworks developed by UNESCO, UN agencies, and other international and civil society organizations.

Based on specific guidance by UNESCO, and working closely with the responsible team of the UNESCO IITE, the contractor’s tasks include to:

Desk review:
   a) Participate in a virtual kick-off meeting with UNESCO staff and the project’s editor to define parameters for the desk review, including the identification of key resources and submission timelines.
   b) Collect, compile, and analyze existing literature, research papers, reports, working papers, government documents, and white papers focused on AI’s role in sexuality education within defined scope and topics, emphasizing:
      o Analysis of AI-based sexuality education programmes and interventions;
      o Examination of ethical implications and the regulatory landscape;
      o Consideration of inclusivity, accessibility, and psychological well-being;
      o Exploration of technical aspects and best practices in AI-based interventions in sexuality education;
      o Investigation of emerging trends and future directions in AI-based sexuality education;
      o Assessment of AI’s potential to transform sexuality education.
   c) Develop a concise report on the desk review (20-25 pages/~320 words per page). This report should include brief summaries of identified articles, papers, and reports; an analysis of key topics; identification of gaps; and suggestions for additional research. Additionally, the report should feature an annex listing experts for future interviews, and AI-driven tools and platforms related to sexuality education and raising awareness in gender, relationships, HIV prevention, and related subjects for children and young people. Ensure credibility and reliability of sources used for the desk review, citing all references appropriately.
   d) Present the research findings in a virtual meeting to a designated working group within UNESCO IITE to validate the content and gather feedback.

Expert interviews:
   a) Collaborate with UNESCO IITE and the project’s editor to curate a list comprising a minimum of 12 eminent experts and practitioners in AI’s application in sexuality education, adolescents’ psychological counseling, service delivery to young people, gender, HIV prevention and treatment, and other pertinent fields. Ensure diversity in geographical representation, institutional backgrounds (academia, civil society, UN agencies, international organizations, IT businesses, etc.), and expertise encompassing both technical and content-related aspects.
b) Co-develop interview guidelines in conjunction with the project’s editor. Ensure that the questions align with the overall review’s structure and address gaps in existing literature. Obtain UNESCO’s approval for the finalized interview guidelines.

c) Initiate communication with the selected experts, securing interview schedules or alternative modes of interaction (written responses, concise comments on topics, etc.), following UNESCO’s endorsement.

d) Conduct interviews or data collection sessions, in coordination with UNESCO IITE staff, ensuring comprehensive notetaking. Transcribe the notes or recordings and verify their accuracy with the experts, ensuring correct representation of all key concepts discussed.

e) Complement the notes with a concise analysis of crucial topics and messages for potential inclusion in the final review (5-8 pages/≈320 words per page).

f) Submit the interview notes to UNESCO IITE for review. Collaborate with UNESCO IITE and the project’s editor to identify pivotal topics and messages for potential inclusion in the final review.

g) Present the interview findings in a virtual meeting to a designated working group within UNESCO IITE for validation and feedback.

Case studies:

a) Compile a list of existing tools and platforms utilizing AI technologies in sexuality education and raising awareness in gender, relationships, HIV prevention, and related subjects for children and young people, based on the information provided by UNESCO IITE and open sources. Collaborate with UNESCO IITE and the project’s editor to select up to 15 cases for further exploration.

b) Develop concise reviews for the selected cases, including:
   - Information about the supporting organizations or individuals behind each initiative.
   - Contact details and links to the respective cases.
   - Brief descriptions of covered topics and target audience.
   - Identification of key strengths, potential risks, and weaknesses associated with each case.

c) Formulate a set of questions, in collaboration with the project’s editor, to be discussed with representatives of the cases. These questions aim to highlight potential best practices, existing gaps, and areas requiring further improvements.

d) Finalize the list of questions in cooperation with the project’s editor.

e) Submit concise reviews of tools and recommendations for the interview questions to UNESCO IITE.

f) Conduct interviews or data collection sessions with representatives of at least 10 tools and platforms utilizing AI technologies in sexuality education and awareness raising, ensuring comprehensive notetaking. Transcribe the notes or recordings and verify their accuracy with interviewees, ensuring correct representation of all key concepts discussed.

g) Based on the information collected, develop draft descriptions of the cases (10*1 page/≈320 words per page). Collaborate with UNESCO IITE and the project’s editor to enhance the descriptions and collect missing information if required.

h) Submit draft descriptions of the cases to UNESCO IITE.
The contractor will submit the following deliverables:

1. A concise desk review report (20-25 pages/≈320 words per page), consisting of:
   - Brief summaries of relevant articles, papers, and reports;
   - An overarching analysis of key review topics;
   - Discussion of identified gaps and areas necessitating further research;
   - An annex containing a list of experts in the field for future contact and interviews;
   - Cataloging AI-driven tools and platforms on sexuality education and raising awareness in gender, relationships, HIV prevention, and related subjects for children and young people, and related subjects.

2. A list comprising a minimum of 12 leading experts and practitioners in AI's role within sexuality education, psychological counseling, service delivery to young people, gender studies, and HIV prevention.


4. Comprehensive notes from conducted expert interviews.

5. An analysis summarizing key topics and insights extracted from the interview data (5-8 pages/≈320 words per page).

6. A compiled list of existing tools and platforms utilizing AI technologies in areas such as sexuality education and raising awareness in gender, relationships, HIV prevention, and related subjects for children and young people.

7. Recommendations outlining questions to be discussed with representatives of AI-based tools for further exploration.

8. Draft description of at least 10 cases (10*1 page/≈320 words per page) — existing tools and platforms utilizing AI technologies in sexuality education and raising awareness in gender, relationships, HIV prevention, and related subjects for children and young people.

**Timeline:**
The desk review and interviews are scheduled to take place from January to April 2024.

**Contractor profile:**
**Experience:**
1. Demonstrated experience in conducting comprehensive desk reviews, including analysis of literature, articles, and reports relevant to the assigned topics, particularly in the context of digital and AI-driven interventions in education;
2. Proven ability to conduct expert interviews, ensuring comprehensive notetaking, accurate transcription, and in-depth analysis of key topics and messages derived from interviews.
3. Experience in compiling case studies and providing concise reviews with critical analysis.
4. Proficiency in creating survey instruments (e.g. questionnaires) that are clear, concise, and structured to gather relevant data effectively.
5. Experience in engaging diverse stakeholders, including digital content creators and educators.
6. Proficiency in summarizing research findings, preparing detailed reports and visualizing data for diverse audiences.

**Education:**
1. An advanced university degree in Education, Social Sciences, Human Sciences, Digital Technology, Linguistics, or related fields is mandatory.
2. Possession of a PhD degree in these areas is considered an additional asset.

**Knowledge:**
   a. Strong command of AI technologies and digital interventions in education, especially within the context of adolescent and youth learning.
Skills:

1. Excellent written and verbal communication skills in English are essential.
2. Sensitivity towards diverse cultural backgrounds and the ability to engage with experts and stakeholders respectfully.
3. Commitment to maintaining ethical standards in research, ensuring privacy and data security in all phases of work.
5. Adherence to ethical research practices and principles, ensuring privacy and data security.
6. Ability to work collaboratively with UNESCO staff and other stakeholders in the coordination and execution of the survey.

Languages:

1. Excellent written and oral skills in English are mandatory. Proficiency in at least one other official UN language (Arabic, Chinese, French, Russian, and Spanish) is an asset.

Qualified candidates are encouraged to submit their applications to y.plakhutina@unesco.org by December 22, 2023 (deadline extended).

The application should consist of the following documents:

- Candidate’s Curriculum Vitae, indicating education, professional background and links to previously developed reports, study papers, etc.;
- A concise statement illustrating how the candidate’s qualifications and experience align with the requirements of the assignment;
- Anticipated remuneration: A clear breakdown of the anticipated expenses related to the assignment.